GRUMMAN plane news

Vol. 36 No. 1, Bethpage, N.Y. January 14, 1977

Cost vs. price

Two new departments to help win contracts

Pursuing new programs can be risky. Sometimes in the current highly-competitive fixed-price environment, a bid may be low enough to win, but not sound enough to make money.

How can this happen? "Easy," says John O'Brien, Senior Vice President—Resources and Administration. "The soundness of any bid price must rely on the accuracy of our cost estimates—that is, what it will actually cost to do the job with understanding the risks involved."

To better analyze its future pursuit of new business, Grumman is taking a new approach to its methods of pricing and estimating.

Accurate Estimates

"Price is a principal factor in winning a new contract," says Rolf Larson, director of Business Operations, "and our new estimating function will be used to develop more accurate cost estimates to correspond with our price quotes."

"A risk analysis must also be performed to evaluate the possibility of unforeseen events which could impact our program performance and profitability. For example, extraordinary inflation associated with rising material costs, supplier strikes, rising oil prices and sudden shifts in the labor environment.

"The risk determinations can then be presented to senior management so a conscious judgement can be made in deciding the final bid price."

Knowing the risks involved, the company can now be prepared to shift its organizational gears to resolve any cost vs. bid price dilemma as it occurs.

New Departments

Beginning this month, two new departments are in operation to support such goals: The Corporate Estimating Technology Department and the Pricing Department.

Estimating, under the direction of Jake Bussolini, will centrally coordinate the task estimates necessary to bring a program from the design stage through final assembly and delivery of the product.

Pricing is under the helm of Bill Hettinger, who reports to Larson. Using data provided by Estimating, Hettinger and Larson will develop pricing strategies for products being offered to Grumman customers.

Bussolini and Larson will report to O'Brien.

Separate Roles

Previously, both functions, Estimating and Pricing, were grouped in one department. But under the reorganization, each will assume a separate role and develop new operational methods.

"If this organization works the way we expect it to, we should be able to win more contracts," said Bussolini. "And we must get the new organization in place and working quickly to get the edge on our competitors."

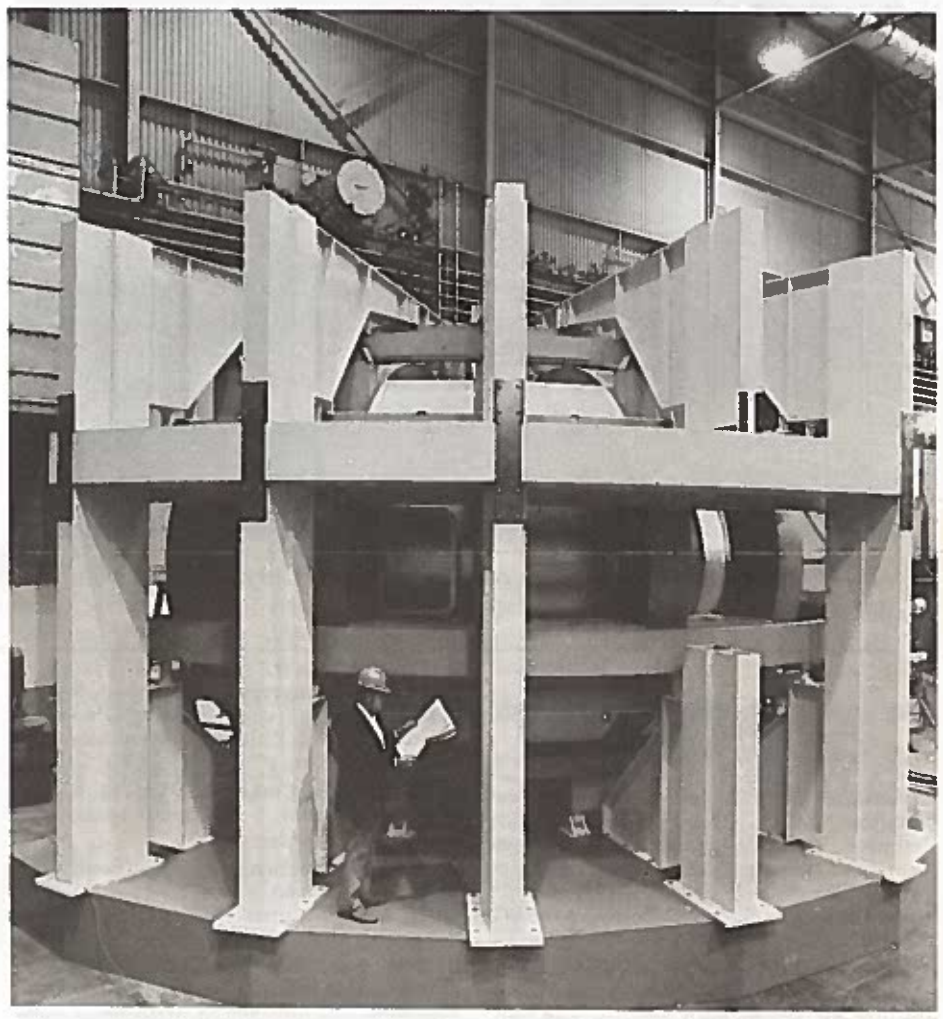
The Estimating Department's main goal will be to show how jobs can be done at the least cost while maintaining superior quality. Much of this function will take place in the design stage by setting certain cost - control standards and by recommending and developing the best technology for lower cost production.

Maintain Standards

The new Estimating Department also will develop task flow diagrams and schedules to help make sure the job is in a coordinated and well-managed status.

The success of this new central organization, says Bussolini, will depend on the mutual cooperation and confidence of all the affected operating departments.

(Continued on page 5)



MOCKUP REACTOR—Plywood mockup of two sections of Tokamak fusion test reactor is on location at Princeton University. Mockup was built by Grumman in Plant 5. Actual reactor, when operational, is expected to supply fusion energy.

International energy meeting

PRINCETON, N.J.—A Grumman management team participated in an international technical meeting here on fusion energy sponsored by the International Atomic Energy Agency.

The meeting concerned the Tokamak research with controlled fusion of which Grumman is a subcontractor.

Presentations were made by scientific teams from Russia, Japan, Germany, France, Italy, Great Britain and The United States.

Those attending from Grumman were: Larry Mead, Eugene Cunningham, Michael D'Agostino, Ronald Spencer, Floyd Thomas, Eric Stern, Robert Papsco and Harold Wexler.

The Princeton conference was one of a series of meetings to help coordinate international fusion policy. Participants generally agreed that the technical and scientific basis now exists for the experimental realization of fusion reactor plasmas by the early 1980s.

Grumman is providing engineering services for the project and is building research components.

GRUMMAN HISTORY CENTER

people

Bob Aberle made the cover of Flying Models magazine with his model of the G-63 Kitten.

The G-63 was developed as a possible general aviation plane at Grumman shortly after WW II. Because of its resemblance to the larger Hellcat, it was known as the Kitten.

The original plane had a wingspan of 28 feet and cruised at 120 miles an hour.

It took five months to research and build the radio-controlled plane. He decided on the Kitten, he says, "because not too many people know about it."

Franklin T. (Hank) Kurt, a retiree, knows about the plane because he flew it for the first time in March '44.

MODEL KITTEN—Bob Aberle explains flight traits of model G-63 Kitten to Hank Kurt. (Photo by Bob Settles)

TOPCAT FOR '76—Lt. Cdr. W. Winston Copeland Jr. (C) is Grumman Aerospace's 'Topcat of the Year'. On hand to present the annual award to the top naval aviator of 1976 were Grumman representatives (L to R) Don Gleason, Jerry Comstock, Vince Nolan, and Joe Kelly.

When he visited Bethpage recently, he complimented Bob on the precise scaling of the red and black-detailed model.

Topcat for '76

Lt. Cdr. W. Winston Copeland Jr. is "Topcat of the Year" for 1976.

Grumman Aerospace presents this award annually to the naval aviator who has made the most significant contributions to fighter naval aviation in the past year.

In a Thanksgiving Day ceremony aboard the USS Midway, Rear Adm. S.R. Foley Jr., commander of Carrier Group Seven, presented the "Topcat of the Year" award to Cdr. Copeland. Also in attendance were Capt. D.L. Felt, commanding officer of USS Midway, Cdr. W.B. Kirkconnell, commander of Carrier Air Wing Five, and Grumman representatives Vince Nolan, Joe Kelly, Jerry Comstock, and Don Gleason, in addition to Cdr. Copeland's fellow officers in VF-151, Vigilantes.

Cdr. Copeland was cited for his "consistent superb airmanship, his calm and professional handling of several immediate action in-flight emergencies in 1976, and the high degree of competence and dedication with which he has performed as squadron maintenance officer."

He has been with the Vigilantes for the past two years. Previous duty assignments included instructor duty at the Navy's Fighter Weapons School in Miramar, Calif., and two cruises to Vietnam where he was credited with the downing of a MiG 17.

calendar

AIAA: Wed., Jan. 19, dinner 6:30 p.m., presentation 7:30 p.m., Holiday Manor, Rt. 107, Bethpage; LI Section; guest speaker: Roger Neathery, manager, General Dynamics Corp—"The Selling of the F-16 Fighter"; guests welcome. S. MacCullough, x7401/G. Frankel, x2346.

Aikido Club: every Mon. & Wed., 5:15 p.m., Pl. 35 cafe; for sport & self-defense; LI Aikido Federation; all guests welcome. B. Bauman, x7856/M. Stock, x7417

Alcoholics Anonymous: every Mon., 5 p.m., Pl. 39, classroom 1; closed meetings. Personnel Relations, x3521; **Calverton:** every Mon., 4-5 p.m., Pl. 8 trailer.

Amateur Radio Club: Wed., Jan. 19, 5 p.m., radio shack on Pl. 5 roof; guest speaker; all welcome. S. Courtney, x2536.

American Production & Inventory Control Society: Tues., Jan. 18, dinner 6:30 p.m., presentation 8 p.m., Crows Nest, Smith St., Farmingdale; local chapter; guest speaker: A. Hannas, president, A. Hannas Associates—"Can Inventory Turns Be a Dangerous Measurement"; all welcome. N. Heilweil, x 2250.

American Society of Mechanical Engineers: Mon., Jan. 17, 6:30 p.m., dinner meeting; guest speaker: Kenneth A. Roe, Burns & Roe—"Recent Dev. in Nuclear Power & Trends"; also, Thurs., Jan. 27, 6:30 p.m., dinner meeting; both mtgs. at Holiday Manor, Bethpage; local chapter; guest speaker: John Peronnet, dep. mgr. Design-to-Cost—"Life Cycle Cost & Design to Cost Methodology"; all welcome. L. Hemmerdinger, x6168.

Duplicate Bridge Club: every Thurs., 6 p.m., Pl. 30 cafe; open competition; guests welcome. S. Stone, x7292/F. O'Lear, x6401.

Fencing Club: every Mon., 4:30-6:00 p.m., Pl. 30 cafe. M. Abbot, x2288.

Folk-Dancers Club (Calverton): every Wed. ballroom dancing, every Tues./Thurs. cha-cha & hustle lessons, lunchtime, receiving area, Pl. 6; all welcome. V. McGoey, x117-6770.

Grumman Model Railroad Society: every Wed., 5:30-9:30 p.m., Model RR Bldg. (at Pl. 3 rr crossing); regular meeting; guests welcome. R. Muntz, x7408.

Grumman Scuba Divers Club: Wed., Jan. 26, 6 p.m., Chateau Restaurant. C. Schlicter, x6120.

Grumman Tennis Club: 1st Mon. of every month, 5 p.m., Pl. 28 auditorium. F. Campagna, x4605.

Grumman Toastmasters Club: Wed., Jan. 26; local chapter; installation of '77 officers; guests welcome. T. Smith, x3533.

Karate Club: every Tues. & Thurs., 5:30-7:00 p.m., Pl. 35 cafe; building character thru physical exercise & self-defense; Gru employees & families welcome. J. Esquerre, x2674.

Society of Logistics Engineers: Tues., Jan. 25, 6-9 p.m., Holiday Manor, Bethpage; LI Chapter, #1, Dist. #10; guest speaker: J.J. Genovese, deputy chief of Naval Matl. for Ops. & Logistics, Wash., D.C.; guests welcome. N. McDowell, 752-3448; **work shop** offered prior to mtg., 5:15-6:00 p.m., Manor Rm., Holiday Manor; open bar fr. 6 p.m., buffet dinner $6.

Stamp Club: 1st, 2nd, 3rd Wed. of each month, 4:45 p.m., Pl. 30 cafe. S. Hoops, x3926.

The National Secy. Assoc. (Intl.): Thurs., Jan. 20, cocktails 6:30 p.m., dinner 7 p.m., followed by mtg., Polish Independent Club, Marcy Ave., Riverhead; educational, secretarial profession; guest speaker: Dr. John Graves, asst. director, Plum Island Animal Disease Center, USDA—"Trip to Russia" narration & slide presentation; all welcome. E. Merten Gaias, x117-7181.

obituaries

SAMUEL J. JARVIS JR. of Honeycomb Prep., Pl. 3, died December 9 at the age of 64. He had been with Grumman since 1952 and resided at 32 Roosevelt Ave., Massapequa Park.

MICHAEL BODNAR, Cutter Grinder of Pl. 2, died December 13 at the age of 60. He worked for the company since 1968 and resided at 234 Friends Lane, Westbury.

WILLIAM H. KRAUER of Spot Weld, Pl. 3, died December 13 at the age of 58. He was with the company since 1963 and resided at 50 Hollywood Dr., Oakdale.

ALBERT J. NICKEL of Sub-Assy. Major, Pl. 27, died December 14 at the age of 54. He was with the company since 1946 and resided at 9 Cecil Pl., Hicksville.

FRANKLIN E. BOYCE of N/C Machines, Pl. 3, died December 26 at the age of 64. He had been with the company since 1946 and resided at 2090 Beech St., Wantagh.

Personal

We wish to thank the Grumman people who so faithfully and generously helped us during my husband's long illness. **Mrs. Edward Harrison and family.**

We would like to extend our sincere appreciation to Grumman Employee Services for their help and kind expression of sympathy. **The Peter Blaschuk family**

My family and I wish to sincerely thank all our friends at Grumman for their kindness and generosity to us at Christmas and during my recent illness. **Bob Semprini and family.**

The family of Rudolph Schalow wishes to thank the Grumman management and fellow workers for their generosity and kindness during our recent bereavement. **Theresa Schalow.**

retirees

On behalf of their fellow workers, PLANE NEWS salutes the following men and women on their contributions to the company and wishes them well in their retirement. Those who retire in January are:

Robert Bram (5), George Brown (3), Dominic Buffalino (2), Louis Caccavale (43), Henry Carpenter (39), Frank Cuzze Jr. (94), Michael Demato (36), Donald Dyer (3), John Eccles (6), Brain Evans (2), L. Gerald Fitgerald (7), Frank Giresi (17), Clinton Inniss (43), Erwin Jansky (2), John Osborne Jr. (6), Basil Papa (35), Fortunata Pasquarella (2), Nathan Perry (2), Frank Reichert (2), Anthony Schumann (30), Lewis Stoffel (25), Ralph Thompson (7), William Trowbridge (3), John Utz (40), Julius Vnook (3), William Vogel (3), Walter Wagner (2), Kenneth Watson Sr. (11), William Arns Jr. (6), Fred Smith (25), John Lerstang (4), Sigmund Rafenski (3), Julius Marx (15), Bertha Burch (43), Charles Baulknight (12), Nicholas Grskovic (17), Robert Pearsall (1), Mary Tessari (35), Anthony Budesheim (2), John Aprea (30), and Harold Lockwood (2).

Capt. Mike Dungan

Capt. Charles Pollack

Air Force officers get inside view of Grumman

Grumman Aerospace is hosting three USAF officers in the Air Force's Education with Industry (EWI) program.

EWI, now in its 27th year, enables officers to broaden their experience while working in a business environment. The company has been an EWI industrial participant since 1965.

Capt. Darrell Badurek

GRUMMAN plane news

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Captains Mike Dungan, Charlie Pollock and Darrell Badurek began their 10-month assignments as members of the Grumman team last September. During their stay, they will be working in various company departments hoping to contribute to company goals as they gain an understanding of how a large aerospace company operates.

Overall View

During the first six weeks, the three captains received an overall view of company objectives and operations, and the opportunity to talk with middle and top management people.

From the outset of the program, Grumman top officials have emphasized that the three USAF officers are to be treated as Grumman employees enrolled in a management understudy program.

"I can gain the most from my stay here by working as a Grumman employee," states Dungan.

Learning Opportunity

Adds Badurek: "This assignment offers an opportunity to learn what happens on the contractor's side of the fence and the best way of learning is to become part of the workforce."

The three officers bring diversified backgrounds to Grumman. Dungan has been stationed overseas for the past six years. He spent his last tour as a command post controller in England. Pollock's most recent assignment was as an instructor pilot flying T-38s at the USAF Instrument Flight Center in San Antonio, Texas.

Badurek came to Grumman from Abilene, Texas where he was an Air Force contracting officer primarily responsible for the procurement of services used by the Air Force in Abilene.

All three officers are concentrating on gaining experience in the areas of

(Continued on page 5)

Global ground crew tours air show world

There's no business like air show business for an F-14 ground crew.

Grumman's six-man F-14 team wasn't out for a speedy trip when they left New York last August 18 for Spain. Their task was to provide ground support at the Japan and Farnborough air shows and at the U.S.—Iran ferry stopover point in Madrid.

They came back to New York after circling the globe in 71 days—tired but glad to be home.

Show Experience

The crew members were; team leader Frank Spinos, plane captain George Nichols, and crewmen Randy Young, Frank Zahra, Tom Kantorcik and Whitey Howell (who doubled as the E-2C plane captain). Except for Howell, they all work at (or out of) Plant 7, Calverton.

Each member had air show experience before starting their worldwide journey. They all had "family clearance" before leaving, and said their wives and children went along with the temporary separation.

"After all," explained Nichols, "not everyone gets a chance to go around the world—not on the payroll anyway." It wasn't a free vacation or an easy way out of work. "It was no holiday tour, I'll tell you" said Zahra. We hardly had any leisure time."

The crew worked 10 or more hours each day (including commuting time) and spent much time shuttling among assignments.

"I saw New Delhi, Bangkok, Athens, and Bagdad," said Spinos. "But only because I noticed the signs in each airport as we travelled through."

While at the air shows, the ground crew was responsible for the maintenance of the F-14 attending. "We kept the plane with all its systems functioning properly," explained Spinos.

The crew is an important part of any exhibition. They make sure the plane operates with a minimum of maintenance activity. That leads to a favorable impact on the possible customers at the show.

In recent years, Grumman increased its air show participation as the international market expanded. More countries are able to buy and

(Continued on page 5)

Attention students

Application forms and general rules for the Grumman Tuition Reimbursement Program are now available at all Employee Service (ES) offices and Field Service Administration offices.

Students are reminded that applications for the spring semester must be filed with the Tuition Reimbursement Office, Dept. 327, Plant 39, within 30 days of the school's last date of registration.

Shuttle wings are ready for journey to Coast

The next set of shuttle wings will leave Grumman January 31.

First, the 12,700 pound wings will be mounted on a special trailer (built by Ground Support personnel) and drawn by a truck at a pedestrian pace with a walking escort.

After arriving at South Oyster Bay, the wings will be shipped by barge to Bayonne, N.J. From there they will travel around the continent through the Panama Canal to San Diego.

The trip will finish when the wings reach Palmdale, Calif., in the Mohabe desert where Rockwell assembles the Shuttle.

The latest wing set has an improved seal design and less weight. The seal is between the shuttle fuselage and wing itself, along the wing's leading edge. It has been redesigned to withstand greater temperatures while still retaining its flexibility and efficiency.

Perhaps more important, each wing is 800 pounds lighter, which means more fuel or payload can be carried on the shuttle.

Each wing, measuring 48 by 28 feet, will be checked out thoroughly by Grumman, Navy, NASA and Rockwell inspection teams.

We're No. 8

Grumman Corp. placed eighth among the top 10 defense contractors for the year ended June 30, according to the Defense Department.

The company was awarded $982 million, down from fifth place with $1.34 billion in 1975.

McDonnell Douglas replaced Lockheed Aircraft Corp as the nation's largest defense contractor in the same period, the Defense Department said. McDonnell Douglas had contracts valued at $2.46 billion. In 1975 it placed fourth with $1.4 billion.

Litton Industries and Rockwell International Corp trailed Grumman with $978.2 million and $965.9 million respectively.

Extended benefits

Pension, health, holiday package grows, changes

Grumman's fringe benefits have reached an all-time high plateau and "our program is continuing to increase and change," observes Bob Foster, deputy director of Personnel.

Currently, the company's fringe benefit package adds an additional 33 per cent approximately to the payroll. And in today's modern working world, Foster points out, most people regard such benefits as a right, not merely a fringe. "In reality, these benefits are a large part of an employee's total compensation," he said.

There is a significant contrast between the current multi-phased benefit package and the benefit plan of a decade ago.

Limited Benefits

In 1965, for example, fringes cost Grumman about $1.13 a man-hour. There were no dental plan or long-term disability insurance. The investment plan had just begun with the company-matching contribution less than half what it is today.

Medical insurance paid $20 a day for a stay in the hospital. Although hospital costs were lower, benefits lasted only 70 days and usually the insurance covered only partial payments.

Today, fringes add an average of more than $2.70 an hour—more than $100 a week—for each employee. Hospitalization pays for all costs—sometimes more than $100 a day—for 365 days. There's a new dental plan with teeth in it. Should a disabling illness befall an individual, a long-term disability plan will guarantee 50 per cent of a person's salary to age 65 by supplementing other benefits. And there's much more.

When the last survey was taken, the total benefit package amounted to $136,574,045.

Earlier Programs

During the early days of the company, such benefits as a pension plan, major medical insurance and a program that pays for a significant portion of an individuals dental bills were unheard of. Today, it's an integral part of attracting and keeping the best possible candidates to Grumman.

"We'd have a very hard time holding on to our people if our benefit programs didn't change with the times," says Foster who points out the company must compete for qualified personnel with other industrial firms.

Now the company's benefit program is at a high-level in caring for an employee's physical needs: medical, dental, disability and old-age security. The federal government, too, may be assuming a more significant role in this area with plans for a comprehensive national health-care program.

So Grumman, as well as other large companies, is looking at other benefit areas to improve the quality of life.

Industry Trends

Although the trend in industry seems to be heading toward more leisure time and, in some instances, flexible work schedules, Foster observes there are no plans at present at Grumman to adopt such policies because of the heavy delivery committment the company has to its customers.

"People today are not as interested in merely making a living," adds Foster. "They want more time off to do what they want to do."

At Grumman, improvements in the vacation plan have been made twice in the past year to allow more time off for most employees. In addition, an individual may now carry one-half his vacation time into the next year to allow for more extended holidays.

It could be argued that industry is becoming more paternalistic with increased participation in employee benefits, but Foster doesn't think so.

Cafeteria Concept

Individual choice someday may be adapted to the total benefit package with a so-called cafeteria concept, he says, so an employee may be able to choose benefits to suit his or her own particular situation in life.

A younger employee may opt for a higher pay check while the older worker may choose more vacation time and higher pension benefits or earlier retirement eligibility.

Bill Mistretta, an assembler-riveter in the Prototype Department, says such an attitude toward a larger paycheck and lesser fringes among the younger employees is not unusual. He is his department's Affirmative Action Program coordinator. Frequently, he is called upon to refer people to the proper source on Grumman's benefit programs.

Money Now

"The younger fellows are more interested in more money now," he said. "In many cases they are not that concerned with fringe benefits. But (an appreciation for such benefits) comes with age."

(Continued on page 7)

Bob Foster
"Most people regard benefits as a right."

Bill Mistretta
"It's more than just the salary."

New loan pact arranged

Grumman has arranged for a new seven-year $160 million financing agreement with nine United States banks.

John C. Bierwirth, Grumman Corporation chairman, said the new financing will provide the financial means for continued growth.

The new loan agreement replaces the company's $200 million line of commercial credit established in October 1974.

The earlier financing provided a $75 million subordinated loan from Bank Melli of Iran and a revolving credit of $125 million from a consortium of United States banks. The Irani loan will be fully prepaid.

Bierwirth said the new arrangement will extend Grumman's credit availability until 1983 at a lower rate of interest.

New Posts

Arthur August has been appointed director of new Product Development.

In his new assignment, he will be responsible for expanding Grumman's business base through technology applications.

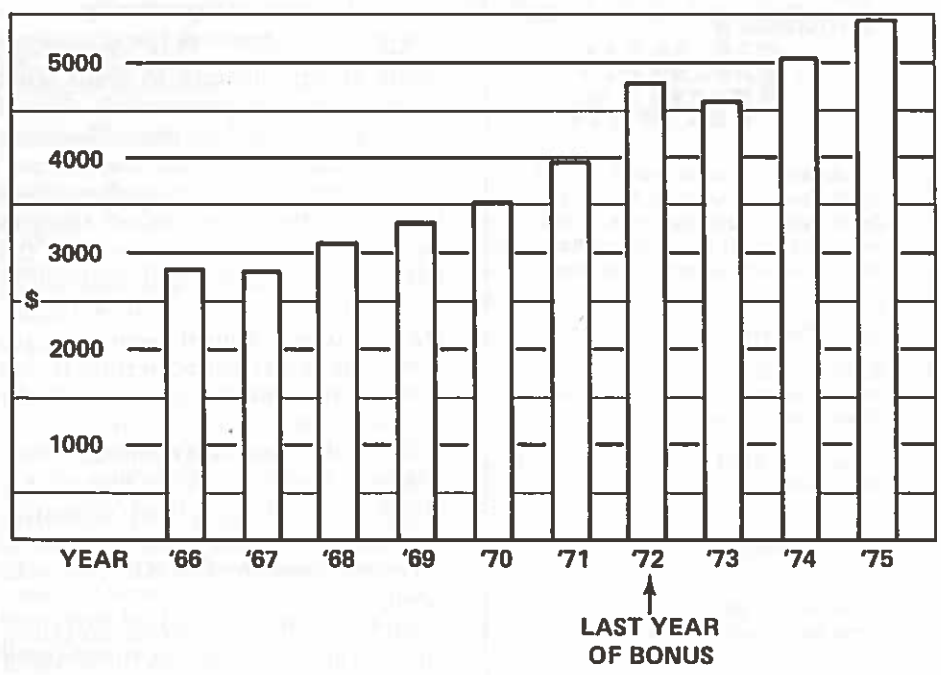
August will continue to report to Dr. R.L. Caporali, director of Advanced Systems Technology. He will be located in plant 5.

Victor E. Pesqueira has been named Washington manager, press and investor relations, for Grumman Corp.

The new position in Washington, D.C., will provide concentrated professional attention to reporters and security analysts in that area.

Pesqueira's office is at 1600 Wilson Blvd., Suite 711, Arlington, Va. He reports to W.B. Jones, vice president, Public Affairs.

AVERAGE ANNUAL COST OF BENEFITS PER EMPLOYEE



TOMCAT BACKERS—Frank Spinos (center) reviews air show itinerary with ground crew members (L to R) Randy Young, George Nichols, Tom Kantorcik and Frank Zahra.

F-14 crew tours air show world

(Continued from page 3)

maintain sophisticated craft and an air exhibition is the best place for a customer to actually see what he might buy.

The Grumman F-14 ground crew noticed the extraordinary interest of spectators at the shows in Farnborough, England and Iruma, Japan.

"The kids at Farnborough were telling their fathers what types of planes were there, what they were for and how they worked," said George Nichols.

"The Japanese people showed a fantastic interest too," added Spinos.

"Every other person seemed to have at least five cameras. Some would take pictures and come back the next day to give us prints."

Near Riot

Tom Kantorcik recalled, "We were giving out color pictures of the F-14, but there was almost a riot when we handed them out and we nearly got trampled. So we started giving them out on the sly."

The ground crew travelled more than 28,000 miles during their tour, which began at Torrejon Air Base near Madrid. While in Spain they provided ground support for F-14s being ferried to Iran. They also picked up a little Spanish.

"We learned enough to order food," said Frank Zahra, "but once I stood right in front of the taps, ordered beer, and ended up with four Cokes."

From Madrid the crew went to England for the air show at Farnborough Royal Air Force Station. "We had four hours of free time out of 12 days, in the rain," said Nichols. "We took a tour down the Thames and saw Big Ben and Westminster Abbey."

After another two weeks in Madrid, the crew flew to the Phillipines to prepare a Tomcat for the Japan Air Show. To get to Cubi Point Naval Air Station they had to take a 50-mile jeep ride from Manila Airport through the jungle and over a narrow, muddy mountain road. Whitey Howell was spared that trip because he left his crewmates to board the USS Midway to ready an E-2C Hawkeye for the Japan show.

Autograph Hunters

Once in Japan, the crew was stationed at Iruna Air Force Base, near Tokyo. They all agreed their hosts were open and interested.

"Believe it or not," said Spinos, "some people asked for our autographs. Imagine, who would want a mechanic's autograph?"

After 15 days in Japan, the crew was ready to come home. On October 27, they left Tokyo bound for New York to complete their globular circle.

After the journey of delayed flights, long days, lost luggage and jet lag, the crew agreed the trip was worthwhile, but certainly no pleasure jaunt.

What will happen the next time they're given the opportunity to go on an overseas assignment? "I'll jump at the chance," said Randy Young, "but I won't jump as fast."

Education

(Continued from page 3)

supply management, procurement, logistics plans and program management. They hope to obtain this knowledge by actively participating with management in solving problems involving industrial organization, budgeting, production and assembly, marketing, contracts and numerous other categories.

"We have a chance to get involved in Grumman's daily operations," says Dungan. "When we return to regular Air Force assignments, we'll have a better understanding of the contractors with whom we work."

Pollock concluded that, "EWI is an excellent method for improving communications between industry and government. Both sides can gain from the interchange."

Medical will keep tabs on your blood pressure

A company-wide program to detect high blood pressure starts this month. It will be an ongoing project at no cost to employees.

Dr. Bob Jessup, Grumman Aerospace medical director, said participation is voluntary and findings are confidential. Results will be given to employees only. They will not become part of anyone's personnel record, nor will they be discussed with anyone.

A blood pressure check may be obtained at any first aid station.

"High blood pressure is a common and devastating problem," Dr. Jessup explained. "It afflicts an estimated 15 to 20 per cent of the adult population. It is a common cause of stroke, heart failure and kidney disease, and it is a major contributing factor in 250,000 deaths each year."

Generally people with high blood pressure don't realize anything is wrong. The disease usually doesn't cause any symptoms, so it offers no warning until serious complications occur.

The aim of the program is to identify those employees with elevated blood pressure and alert them to its dangers, so they can seek an evaluation from their own physicians.

"Since many health experts consider high blood pressure to be the nation's number one health priority," Jessup says, "we believe the screening program will help protect the health and lives of our personnel."

Protect Your Heart
CONTROL HIGH BLOOD PRESSURE

New departments seek wins

(Continued from page 1)

"Our goal is to implement the same cost standards throughout the entire company," said Bussolini. "We want to weave a thread of common cost-control technology management through the Grumman organization."

The new Estimating Department will communicate the very latest ideas through manuals, training programs and by working side-by-side with production and engineering people.

Best Methods

The manuals will describe products and spell out the best production technology and fabrication methods for doing the job. These instructions could include the latest electronically-controlled machine tools or the use of stronger lighter-weight composite materials—all pointed to reducing costs.

All this effort, says Bussolini, will lead to more confident and accurate estimates.

The estimating function, therefore, will provide the Pricing Department with the ability to determine the risks associated with the price that would lead to a winning proposal.

Said Larson: "The measure of our success rests in our ability to compete and win in an increasingly more competitive market place and still maintain our profit goals."

STRATEGY SESSION—Executives of new Estimating and Pricing Departments discuss organizational plans. Left to right, John O'Brien, Senior Vice President—Resources and Administration; Jake Bussolini, Estimating Department director; Bill Hettinger, Pricing Department director; and Rolf Larson, Business Operations Department director. (Photo by Bob Settles)

Registration begins for after-hours classes

Training and Development Department of Grumman Aerospace will offer a number of after-hours courses again this semester to help students expand their knowledge and brush up on their skills. Registration is by phone, starting 8 a.m., Monday, January 31, and continuing until 4:30 p.m., Friday, February 4. There are no fees or tuition charges.

The courses listed are available to Grumman employees. For some courses there are prerequisites. Students need not have fulfilled a particular prerequisite by taking voluntary education courses: courses taken elsewhere or work experience can prepare a student for the more advanced courses.

For all courses, a minimum registration of 15 students is required.

Enrollment Procedure

Enrollment is strictly voluntary. Students may register by calling the Voluntary Education Office at the extension listed below. Please note: a specific phone extension is assigned for registrations for the day on which a course is given. Extensions listed below, marked by an asterisk (*), will be connected *only during the registration period.*

Registration calls will be accepted ONLY from 8 a.m., January 31, through 4:30 p.m., February 4, 1977, each working day.

Courses in Bethpage and at other sites:

Monday evening courses—call ext. 4678*

Tuesday evening courses—call ext. 4684*

Wednesday evening courses—call ext. 4685*

Thursday evening courses—call ext. 7350*

All Calverton site courses—call ext. 6888

Certificates

Certificates will be issued to those students who have attended at least 80% of the sessions and have achieved the course instructional objectives in a creditable manner. Further information can be obtained by calling the Voluntary Education Office on Ext. 4044.

Student Cost

There are no fees or tuition charges; however, students are expected to purchase their own textbooks. Textbooks may be purchased anywhere, but for students' convenience, the Voluntary Education Office will have textbooks available for purchase through the course instructor.

The following list of courses being offered by Corporation Training and Development includes title, course number, description of course, section number (if more than one section is being offered), instructor, location and time of class, and starting date. For registration, refer to title, course number, and section (if more than one class offered).

Other Helpful Information

Many worthwhile programs of study are also available at your local high schools. Your school district's Adult Education, BOCES, and VEEB programs, offer a variety of courses at all levels: For more information, contact your local school district.

COMPUTER SCIENCES

Introduction to Computer Programming—CA (FF01546—37.5 hrs.)

Thirty-seven and one half hours divided into 15 2-½ hour lessons. The principles are taught by examples using common programming languages. The languages serve a dual purpose of familiarizing the student with available languages and providing a medium for practice of programming techniques. Languages covered in detail and used for examples are Basic, Fortran and Cobol. Other languages discussed are PL/1, APL and RPG. The lessons will be about 60% lecture and 40% exercise.

Prerequisites: None
Sec. I
R. Sacks, Room 110, Bethpage H.S., 5-7:30 P.M., Wed. Feb. 16
Sec. II
D. Rothkopf, Room 110, Bethpage H.S., 5-7:30 P.M., Mon. Feb. 14

NOTE: As of Spring 1976, this course has been recommended by the State of New York for lower baccalaureate credit.

Computer Programming, COBOL (FF01547—37.5 hrs.)

Teach students to solve data processing problems using the COBOL programming language. The two and a half hour lessons will be divided between theory and practice. When practical, the lessons will be equally divided between lecture and practice exercises.

Prerequisites: Introduction to Computer Programming, or equivalent
B. Abrams, Room 112, Bethpage H.S., 5-7:30 P.M., Mon., Feb. 14

NOTE: As of Spring 1976, this course has been recommended by the State of New York for lower baccaureate credit.

Computer Programming, FORTRAN (Advanced) (FF01141—36 hrs.)

Upon completion of this course the student will be able to express algebraic formulas by means of FORTRAN arithmetic statements, express program logic in FORTRAN language, write FORTRAN subprograms and express several typical computational problems in the FORTRAN. Participants are required to submit several class projects. Two of these are comprehensive in nature and are considered as a midterm (ref. 6.9) and a final (ref. 6.14). Short quizzes and student involvement in class discussions are other means by which a student is evaluated.

Prerequisites: Computer Programming FORTRAN FF01548
J. Vosefski, Room 111, Bethpage H.S. 5-7:30 P.M., Wed., Feb. 16

Computers: A Management Tool—CA (FF01549—37.5 hrs.)

To increase the participants' awareness, knowledge and understanding in the areas of information processing and computers as they relate to management, operational effectiveness, planning and organizational change. The general concepts and characteristics of the hardware and software components of information processing systems are presented in addition to the processes and methodologies related to application development, system procurement, and management. Included are topics such as: industry personnel and organization, the system life cycle, software make or buy, the software factory, hardware architecture, and input/output devices, resource management, security, computer-aided design, and financial modelling; covering historical development, current state-of-the-art and industry trends.

Prerequisites: Introduction to Computer Programming— FF00003 or Equivalent
M. Blyseth, Room 113, Bethpage H.S., 5-7:30 P.M., Wed. Feb, 16

NOTE: As of Spring 1976, this course has been recommended for graduate credit by the State of New York.

ENGINEERING SCIENCES

Introduction to Microcomputers (FF01544—40 hrs.)

A beginning course emphasizing microcomputer principles. This course teaches the fundamental concepts of microcomputers, what they are and how they work. Computer languages will be explained as well as the basics of programming. Hands on experience will be an integral part of this course through the use of microcomputer.

Prerequisites: None
Sect. I
R. Apgar, Room 6, Bethpage Plant 39, 5-7 P.M., Wed., Feb. 16
Sect. II
R. Apgar, Room 20, Bethpage Plant 39, 5-7 P.M., Mon., Feb. 14
Sect. III
P. Burton, Room Calverton, Plant 08 Training Trailers
Wed., Feb. 16

Integrated Circuits Part II (FF01572—37.5 hrs.)

To provide a thorough understanding of Linear (Analog) and Digital Circuits emphasizing combinatorial and sequential logic circuits. This Integrated Circuits course will begin with a historical background followed by a review of the Decimal Number System. The Binary Number System will be discussed with concentration on conversion of various number systems such as Binary to Decimal and Decimal to Binary. Various Binary codes will be explained as well as conversion from any radix to radix 10. Basic combinational logic will be discussed concentrating on truth tables, Karnaugh Maps and minimizing techniques. The basic gates used in the build-up of combinational logic circuits will be analyzed and algebraic simplification methods will be studied. Sequential logic will be thoroughly analyzed. Various flip flops will be discussed as well as counters and their applications. Registers and their applications will be studied also. The course consists of 37.5 classroom hours of lectures, discussions, slides and View-graphs.

Prerequisite: Integrated Circuits Part I
V. Sanford, Room 116, Bethpage H.S., 5-7:30 P.M., Mon. Feb. 14

Electronic Shop Techniques (FF00307—40 hrs.)

This course instructs basic skills necessary for an electronic shop assembly and fabrication technician. Included are nomenclature, tooling, material identification and pertinent specifications used for electronic assembly and fabrication. Attendees perform related practice following demonstrations of methods and techniques by the instructor.

Prerequisites: None
P. Pantelis, Training Room Great River Plant 43,
Main Building, 4-7 P.M., Wed., Feb. 16

Electricity II (FF 00009—40 hrs.)

This is the second in a series of courses in the Electrical—Electronics Training Program. Practical laboratory experiments, coupled with related theoretical concepts, develop proficiency in circuit fault isolation of electronics equipment. Subjects covered in this course include: schematic diagram reading, power supply circuits, filters, diode rectifier transformers. Basic electrical test instruments, such as volt, ohm, milliammeters, and oscilloscopes are used throughout.

Prerequisite: Electricity I, or Equivalent Experience
J. Hosek, Room 1, Calverton—Plant 08, Training Trailers, 4:15-7:15, Wed., Feb. 16

Electronics I (FF 00010—40 hrs)

Power supply circuits and associated electrical—electronic components constitute the main subjects of this course. Operational theory and practice is provided in circuits such as: transformer and semiconductor power supplies, solid state logic, half-wave and full-wave supplies, voltage doublers, and solid-state bridges. Related math is taught, as required, with each experiment. Students also gain experience in the use of basic shop test instruments.

Prerequisite: Electricity I and II, or Equivalent Experience
S. Biesiadecki, Room 4, Bethpage Plant 39, 4-7 P.M., Wed., Feb. 16

Electronics II (FF00011—40 hrs.)

Electronic components are used to construct circuits such as logic gates, oscillators, and audio amplifiers. Both vacuum tube and transistor familiarization is covered during the course for a more complete understanding of complex circuits. Standard electronic shop test instruments will be used throughout the course.

Prerequisite: Electronics I, or equivalent experience
S. Biesiadecki, Room 4, Bethpage Plant 39 4-7 P.M., Wed., Feb. 16

Basic Blueprint Reading (FF00048—30 hrs.)

Instruction covers the fundamentals of print reading, including intepretation of an engineering drawing, dimensions and tolerances, surface finishes, bill of materials, drawing notes, manufacturing processess, and aircraft terminology.

Prerequisites: None
Sec. I, J. DeLorenzo, Room 5, Bethpage Plant 39, 2-4 P.M., Tues., Feb. 15 (Night Employee "geared")
Sec. II, J. DeLorenzo, Room 111 Bethpage H.S., 5-7 P.M., Tues., Feb. 15

Integrated Circuits for Technicians (FF 000347—30 hrs.)

Provide electronic technicians with the physical and performance characteristics of typical Integrated Circuits.

The subject matter will begin with classification of members of the Integrated Circuit (I.C.) family. Characteristics of the various I.C.s, as well as a "positive logic" review, "negative logic" review, and mechanical considerations will follow. Major subject areas include: Linear Circuits, I.C. O.P. AMP Applications, Linear I.C. packages, Digital I.C.s, interfacing problems, testing, FET, LSI circuits, memory and I.C. future trends.

Prerequisite: Experience as an electronic technician.
V. Sanford, Room 2, Calverton—Plant 8, Training Trailers, 4-6 P.M., Wed., Feb. 16

Business and Technical Writing—CA (FF01545—36 hrs.)

The basic purpose is to provide both a philosophy and the mechanics for filling business and industry's three major intra-company writing needs: writing to prescribe; writing to persuade; writing to report. The course consists of lecture, discussions and workshops.

Prerequisites: None

W. Fleischhaur, Room 110, Bethpage H.S., 5-7:30 P.M., Tues., Feb. 15

NOTE: As of 1976 this course has been recommended by the State of New York for lower baccalaureate credit.

Typing Beginners (FF 00030—30 hrs.)

For those who desire a skill in typing. Through regular classroom practice and drill, students will acquire the necessary keyboard control essential to good typing techniques.

Prerequisites: None

C. Weiner, Room 109, Bethpage H.S., 5-7 P.M., Wed., Feb. 16

Reading-Improvement (FF00030—30 hrs.)

For the average or above average reader who wishes to read more efficiently. Through systematic classrooms exercises, the student will increase substantially his reading speed and comprehension.

Prerequisites: None

G. Ballard, Room TBA, Bethpage H.S., 5-7 p.m., Mon/Wed., Feb. 14

Effective Oral Presentations—CA (FF01550—36 hrs.)

To develop each participant's skill in communicating with and motivating an audience, as evidenced by the ability to compose and deliver presentations with poise, self-confidence and effectiveness. The course covers the basic elements of speaking effectively before an audience. Five (5) formal presentations are required of each participant, as well as at least a dozen impromptu presentations.

Prerequisites: None

G. Breen, Room 111, Bethpage H.S., 5-7:15 P.M., Mon. Feb. 14

NOTE: As of 1976 this course has been recommended by the State of New York for lower baccalaureate credit.

Stenoscript Speedwriting (FF000281—30 hrs.)

For anyone where quick accurate note-taking is a requirement (technical meetings, management meetings, recording your thoughts or the words of others) this course will increase your ability, make you a more valuable employee and better prepare you for future opportunities. In just 15 meetings you will learn a new technique, the ability to speedwrite.

Prerequisite: None

F. Mills, Room 1, Bethpage Plant 39, 5-7 P.M., Thurs., Feb. 17

Gregg Refresher (FF00023—30 hrs.)

A course designed for the individual who wishes to refresh or rebuild skills in shorthand. Provides dictation and transcription practice geared to industrial requirements.

Prerequisite: A knowledge of Gregg Shorthand

M. Wolfe, Room 109, Bethpage H.S. 5-7 P.M., Tues., Feb. 15

AUTOMATED TRAINING PROGRAMS

Voluntary Education enters a new field with these self-instructional courses. Registration varies somewhat from the other courses in Voluntary Education since you take these subjects by yourself while seated at a study carrel in one of our Learning Centers. When you report to the Learning Center, a representative from Training and Development will give you the required workbooks and associated material. You will be instructed in the use of the equipment necessary to take the course. Once this is accomplished, you may begin the course and proceed at your own rate. Sessions are to last approximately 2 hours. The program materials must then be returned to the Learning Center Library until the next session.

Please note: You may register for automated programs throughout the year. Availability of study carrels will be the governing factor.

Industrial Conversion to the Metric System (AT01320—6 hrs.)

Designed to provide an understanding of essential elements in the metric system, this course will enable you to deal confidently with metric terms, measurements and conversions. The knowledge gained in this course will help you assist your children with their homework while it prepares you for the country's eventual conversion to the metric system.

Spanish—Basic Course (Unit 1-15) (AT00297—150 hrs.)

This basic course in Conversational Spanish will focus on pronunciation problems, basic dialogs and conversations between the taped program and the student. All areas of this course are supported by drills which aid the learning process. Because this course is being offered on a trial basis, we will be limiting it to the first to register. In Bethpage, the first ten (10) to call will be accepted; in Calverton, the first six (6).

Learning Centers:
Plant 39, Bethpage—ext. 84044
Plant 06, Calverton—ext. 6888

Benefits grow, change

(Continued from page 4)

Mistretta, who has been with Grumman for more than 25 years, knows about hospitalization benefits. His wife recently gave birth by Cesarean section. He said the medical charges came to some $5,000 because the child was born prematurely and had to spend two weeks in a special medical center. His wife also had an extended hospital stay.

People are not aware of these benefits until it is time to use them. Then they are thankful, Mistretta continued.

More Than Salary

"Grumman has been good to me for these 25 years. And it's more than just the salary. I can safely say it's the fringes too. When I get to be 65 I will get something back (pension payments, insurance benefits, etc.) for all these years."

Mistretta, however, also would like to see some changes in the program: more sick leave with pay, more vacation time for those with more than 20 years' service and a partial extension of life insurance for retirees.

Looking further into the future, Foster talks about group legal benefits where an employee could hire a lawyer to make out a will or close on a house—all at reduced fees.

Going Too Far

There's some thinking too about mid-career sabbaticals where an employee is allowed to take a year off to work in the Peace Corps or return to school.

But no matter how much planning is done for added employee benefits, personnel managers are aware of going so far that the company would not be able to compete in the market place because of costs.

EVOLUTION OF SOME GRUMMAN BENEFITS

Jan. 1, 1969

Hospital room and board increased to full 365 days coverage. Diagnostic lab and x-ray payments increased to $100. Major medical coverage provided for non total disability.

Oct. 1, 1970

Pensions for retirees can be increased a maximum of 3 per cent each year depending upon consumer price index.

April 20, 1971

Intensive care provided at daily rate in full.

Jan. 1, 1972

Emergency accident care increased to 72 hours and six weeks follow up.

Jan. 15, 1973

Foster children covered under medical plan.

March 1, 1973

Psychoanalysis covered by medical plan—retroactive to 1969.

Jan. 1, 1974

Surgical schedule increased from $550 to $1,400. Major medical increased to $50,000. Life insurance increased to twice annual salary. Dismemberment allowance set at one times annual salary. Company contribution to investment plan increased from 25 per cent to 50 per cent. Addition of one holiday.

Jan. 1, 1975

Compensation added for extended care treatment other than hospital stay. Dental plan added. Short term disability raised from $100 maximum to $125 maximum. Retirees put under major medical coverage. Addition of one holiday.

Jan. 1, 1976

Major medical maximum raised to $100,000. X-ray and laboratory payments increased to $150. Insurance for widows continued for one year. Surgical schedule increased from $1,400 to $1,500. Maternity compensation set at $225; Cesarean to $325. Retirees insurance coverage established for anyone who qualifies for a pension. Pension plan eligibility changed from a five-year waiting period to age 25 and one year of service. Fifth week of vacation for employees with 30 years service.

Jan. 1, 1977

Company contribution to the investment plan changed to range between 50 per cent and 100 per cent as a function of company performance. Surgical schedule changed to allow 80 per cent of reasonable and customary charges. Emergency accident expenses and hospital outpatient surgical procedures raised from $100 to $150. Improved vacation for employees with 22 to 29 years service.

AF general urges reliability, quality

An Air Force general told industry representatives at a Bethpage meeting that contractors must be responsible for quality as well as performance.

"We are becoming tougher customers," said Gen. F. Michael Rogers. "...we are insisting that industry become just as concerned for value and quality."

The general, who heads the Air Force Logistics Command, spoke to the Long Island chapter of the Society of Logistics Engineers.

Gen. Rogers also pointed out that the foreign military sales program is extremely important to the security and economy of the United States, as well as the security of those being supported.

"We can assist as they develop their economies," he said. "We can modernize their defense forces and strengthen their respective governmental organizations. Thus, we can make a significant and perhaps a bountiful contribution to our own country."

Gavin elected to AIAA board

Joseph G. Gavin, Grumman Corp. president, has been elected to the board of governors of the Aerospace Industries Association of America.

His one-year term begins Jan. 1, 1977. Gavin joins other senior executives from most of the major U.S. aerospace companies who serve on the board.

scorecard

If Frank Huether tells you he has a hole-in-one to his credit, you can believe him. He has two witnesses.

On Dec. 20, '76, Dick Berrigan, John England, and Huether played the Yellow course at Bethpage during an afternoon of pouring rain.

At the 185 yard, 14th hole, the miracle took place. After Frank drove off, the most the trio could surmise was that his ball probably landed on the green. Dick says it was impossible to see the green because it was on the other side of a hump in the fairway.

When they didn't see Frank's ball on the green or anywhere else—they looked right in the hole. And there it was.

Since Frank retired last July, he's been playing golf four or five times a week. An eight handicapper, he was on the course that day for a final warm-up before leaving for a vacation in Mexico.

Pitching champs

Tom Boggs won the Great River singles horseshoe finals defeating Bob Klewicki three games straight in a five game playoff. Boggs opened with a first game score of 22-1 that forecast the outcome of the series. He also teamed up with partner Ken Dale and they snatched the doubles crown.

At Calverton, George Bixby outclassed George Styles in the horseshoe tournament after a closely-fought contest.

Handball aces

Out of a field of 20 entries, Bernie Pilossoph established himself as Great River handball singles champion. He overcame Marty Makboulian, second place winner. In the doubles playoff, he and Bob Richter battled Joe Jacklets and Nick Briganti defeating them for the first place slot. The winning duo also claimed the paddleball title, beating their friendly rivals Briganti and Jacklets again.

BRIDGE CHAMPS. The Long Island Industrial Bridge League held its 1976 finals last month in Plant 30. Of the eight teams competing, the smiling foursome above came in first. They are: north—Norf Florio, south—Shizuko Yagi, east—Marty Finkelman, west—team captain Fumio Yagi, not pictured—Pete Shyprykevich.

SOFTBALL CHAMPS—Grumman's Hellcat softball team defeated Bell for Isfahan softball championship of '76 after victorious 26-1 season. Kneeling (L to R) Skip Meinhold, Chuck Hennings, Gary Aguinaga, Deniz Balta, Suzanne Bachelier, Jack Bachelier and Danny Bachelier. Standing (L to R) Larry White, Mark Morgan, David Bouse, Marty Clark, Ed Dudek, Danny Cooper, Mike Graziano, and Del Foster. Tom Fullerton was not available for photo.

Pin points

Joe Russo of the Masters Bowling League reports the J&B's scored a record 671 for one game. Deadeye keglers Dick Baffuto, Jack Nielsen, and Joe Russo did the rolling for high marks. When it comes to high marks, not many competitors can reach Kevin Kremler who has the record for high mens' series with 876.

Hoop news

Grumman's intramural after hours basketball league started Nov. 15 and will run to Mar. 7 for the playoffs. During the opening weeks of the league, the Plant 2 Stars looked like finalists as they defeated the Maurauders 132-82. Team manager Nate Kelly was high scorer with 32 points.

Bocce masters

Plant 44 won the Great River bocce championship when the Rollaball Mafia Inc. defeated the Boccigalupes 4-1 in a best of seven games series. Captain Gary Ferrone says the champs won because of their unerring eye and cool delivery. Celebrating victory with him are Mario Serafini, Jim Kelly, Joe Todaro, and Val Tassone.

Lunch on the ice

The Bethpage Community Park ice skating rink will be open daily from noon to 1 p.m. The rink is south of Plant 30 gate. Admission for Grummanites is 35 cents. Contact park manager Ken Herzlinger, 681-5463.

GRUMMAN plane news

ADDRESS CORRECTION REQUESTED

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